



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/937,114	09/20/2001	Andrew Bartlett	MCA-460 PC/US	4663
25182	7590	02/17/2005	EXAMINER	
MILLIPORE CORPORATION 290 CONCORD ROAD BILLERICA, MA 01821			MENON, KRISHNAN S	
			ART UNIT	PAPER NUMBER
			1723	
DATE MAILED: 02/17/2005				

Please find below and/or attached an Office communication concerning this application or proceeding.

4D

Office Action Summary

Application No.

09/937,114

Applicant(s)

BARTLETT ET AL.

Examiner

Krishnan S Menon

Art Unit

1723

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 January 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,2,5-8 and 10-13 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,2,5-8, and 10-13 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Claims 1,2,5-8, and 10-13 are pending after the amendment of 1/12/05.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

1. Claims 2,10 and 13 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Wyatt et al (US 3,679,059).

Wyatt teaches a screen for a filter device as in claim 2, and a module as in claim 10, with the screen having one or more ports on the edges (see figures 1 and 2), integral gaskets formed through the screen around the ports, and the thickness of the gaskets extend from the screen layer as in claims 10 and 13 (col 1 lines 60-67). With regard to the thermoplastic elastomer as claimed by the instant claims as amended, the reference teaches thermoplastic elastomers in col 1 lines 60-65. Reference teaches that rubbers are preferred, and includes low-temperature cured rubbers, silicone rubbers and rubbery materials like polyurethane. Thermoplastic elastomers are "rubbers". A generic chemical formula will anticipate a claimed species covered by the formula when the species can be at once envisaged from the formula: Ex parte A,

Art Unit: 1723

17 USPQ2d 1716 (Bd. Pat. App. & Inter. 1990). If one of ordinary skill in the art is able to "at once envisage" the specific compound within the generic chemical formula, the compound is anticipated. One of ordinary skill in the art must be able to draw the structural formula or write the name of each of the compounds included in the generic formula before any of the compounds can be "at once envisaged." In this instance, the genus "rubbers" or "elastomers" would anticipate 'thermoplastic elastomers' because one of ordinary skill can "at once envisage" a thermoplastic elastomer in the genus "elastomers". Moreover, Applicant's disclosure states that any elastomeric material can be used: "The seal maybe formed of any elastomeric material such as a thermoplastic polymer, copolymer or terpolymer, thermoplastic elastomer, thermosets such as urethane, especially closed cell foamed urethane, and rubber, both natural and synthetic." (page 3 bottom paragraph), which is similar to what the reference teaches.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claim 1 is rejected under 35 USC 103(a) as unpatentable over Van Hoek et al (US 2,758,083) in view of Wyatt et al (US 3,679,059).

Claim 1 recites a filtration device comprising one or more filter layers, with the filter as having one or more openings around which a fluid tight seal is formed by an integral seal that is formed through the filter, with thickness greater than the filter, and made of an elastomer. Van Hoek teaches a filtration (electrodialysis) device with filter membranes having openings which are sealed around (see figures 2-9) by adhesion (col 3 lines 49-52) or compression with elastomeric seal devices (col 4 lines 53, fig 7). Van Hoek does not teach the holes as having integral seal devices around that is integrally formed with thermoplastic elastomeric materials. Wyatt teaches holes around the filter screens (fig 1 and 2) which are sealed by integrally formed thermoplastic elastomers (col 1 lines 50-67). It would be obvious to one of ordinary skill in the art at the time of invention to use the teaching of Wyatt in the teaching of Van Hoek to improve the quality of the seal, reduce the cost and for applications like dialysis, reverse osmosis, etc. (see Wyatt col 1 line 1 – col 2 line 17).

3. Claims 5-8, 11 and 12 are rejected under 35 USC 103(a) as unpatentable over Wyatt et al (US 3,679,059).

Wyatt teaches all the limitations of claims 2 and 10. Instant claims 5-8, 11 and 12 add the extension of the seals above the surfaces of the screen. Wyatt teaches that the thickness of the gasket should be such that the material forms a fluid-tight seal when the pack is assembled and in operation, but does not specify the actual thicknesses. However, it would be obvious to one of ordinary skill in the art at the time of invention that this extension depends on the need for a fluid-tight seal and could be

Art Unit: 1723

optimized, as taught by Wyatt (col 1 lines 60-67). Discovery of an optimum value of a result effective variable in a known process is ordinarily within the skill of the art. In re Boesch and Slaney, 205 USPQ 215 (CCPA 1980); In re Antonie, 559 F.2d 618, 195 USPQ 6 (CCPA 1977); In re Aller, 42 CCPA 824, 220 F.2d 454, 105 USPQ 233 (1955).

Response to Arguments

Applicant's arguments filed 1/12/05 have been fully considered but they are not persuasive.

In response to the arguments against the Wyatt reference: Applicant's arguments are directed at the method of making the seal whereas the claims are for the product; therefore, the arguments are not commensurate with the scope of the claims.

With regard to the thickness of the gaskets, the rejection is very clear on the teaching of Wyatt. With regard to the teaching of Wyatt col 2 lines 8-10, this only means the gasket has a minimum thickness equal to that of the mesh. The subsequent sentence teaches how to increase the gasket thickness by introducing spacers while forming the gasket.

With re to the rejection of claim 1 and the Van Hoek ref, the argument that Van Hoek teaches only glue or heat to seal the membranes together is not entirely correct. Col 4 lines 34-53 teaches compression seal with gasket materials. Argument re the lack of motivation – motivation to combine is clearly stated in the rejection.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Krishnan S Menon whose telephone number is 571-272-1143. The examiner can normally be reached on 8:00-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wanda L Walker can be reached on 571-272-1151. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Art Unit: 1723

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Krishnan Menon
Patent Examiner


W. L. WALKER
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 1700